

lifted off the paraffin film and transferred to a plastic surface (e.g., polyurethane). On the plastic surface the films are again wetted with water containing 20% dioxane, then redried in the dark. The films on the plastic surfaces are then exposed to high intensity visible light for four hours at 4° C. to bind the film to the surface with a fan blowing across the surface to prevent excessive heating of the surface.

While a preferred embodiment of the present invention has been described, it should be understood that various changes, adaptations and modifications may be made therein without departing from the spirit of the invention and the scope of the appended claims.

What is claimed is:

1. A biocompatible device comprising a solid surface carrying molecules of a cell attachment factor, and a chemical linking moiety residue covalently binding individual molecules of the cell attachment factor to the solid surface, the chemical linking moiety residue including a residue of a photochemically reactive group covalently bonded to the solid surface, and a residue of a different reactive group covalently bonded to molecules of the cell attachment factor, one of the groups being unresponsive to a stimulus to which the other group responds, the photochemically reactive group residue being bonded to the solid surface so that the individual molecules of the cell attachment factor are positioned sufficiently proximate to one another as to cause said molecules to effectively shield the solid surface and to provide a biocompatible effective surface.

2. The device of claim 1 wherein the cell attachment factor is laminin or fibronectin.

3. A biocompatible device comprising a solid surface carrying molecules of a growth factor, and a chemical linking moiety residue covalently binding individual molecules of the growth factor to the solid surface, the chemical linking moiety residue including a residue of a photochemically reactive group covalently bonded to the solid surface, and a residue of a different reactive group covalently bonded to molecules of the growth factor, one of the groups being unresponsive to a stimulus to which the other group responds, the photochemically reactive group residue being bonded to the solid surface so that the individual molecules of the growth factor are positioned sufficiently proximate to one another as to cause said molecules to effectively shield the solid surface and to provide a biocompatible effective surface.

4. The device of claim 3 wherein the growth factor is endothelial growth factor, epithelial growth factor, osteoblast growth factor, fibroblast growth factor, platelet derived growth factor, neural growth factor, or angiogenin growth factor.

5. A biocompatible device comprising a solid surface carrying molecules of collagen, and a chemical linking moiety residue covalently binding individual collagen molecules to the solid surface, the chemical linking moiety residue including a residue of a photochemically reactive group covalently bonded to the solid surface, and a residue of a different reactive group covalently bonded to molecules of collagen, one of the groups being unresponsive to a stimulus to which the other group responds, the photochemically reactive group residue being bonded to the solid surface so that the individual collagen molecules are positioned sufficiently proximate to one another as to cause said molecules to effectively shield the solid surface and to provide a biocompatible effective surface.

6. A biocompatible device comprising a solid surface carrying molecules of albumin, and a chemical linking moiety residue covalently binding individual albumin molecules to the solid surface, the chemical linking moiety residue including a residue of a photochemically reactive group covalently bonded to the solid surface, and a residue of a different reactive group covalently bonded to molecules of albumin, one of the groups being unresponsive to a stimulus to which the other group responds, the photochemically reactive group residue being bonded to the solid surface so that the individual albumin molecules are positioned sufficiently proximate to one another as to cause said molecules to effectively shield the solid surface and to provide a biocompatible effective surface.

7. A biocompatible device comprising a solid surface carrying molecules of an antimicrobial agent, and a chemical linking moiety residue covalently binding individual molecules of the antimicrobial agent to the solid surface, the chemical linking moiety residue including a residue of a photochemically reactive group covalently bonded to the solid surface, and a residue of a different reactive group covalently bonded to molecules of the antimicrobial agent, one of the groups being unresponsive to a stimulus to which the other group responds, the photochemically reactive group residue being bonded to the solid surface so that the individual molecules of the antimicrobial agent are positioned sufficiently proximate to one another as to cause said molecules to effectively shield the solid surface and to provide a biocompatible effective surface.

8. The device of claim 7 wherein the antimicrobial agent is lysosyme.

9. The device of claim 7 wherein the antimicrobial agent is penicillin.

10. A biocompatible device comprising a solid surface carrying molecules of heparin, and a chemical linking moiety residue covalently binding individual heparin molecules to the solid surface, the chemical linking moiety residue including a residue of a photochemically reactive group covalently bonded to the solid surface, and a residue of a different reactive group covalently bonded to molecules of heparin, one of the groups being unresponsive to a stimulus to which the other group responds, the photochemically reactive group residue being bonded to the solid surface so that the individual heparin molecules are positioned sufficiently proximate to one another as to cause said molecules to effectively shield the solid surface and to provide a biocompatible effective surface.

11. A biocompatible device having a solid surface carrying molecules of albumin joined to one another to form a biocompatible film, said film carrying a chemical linking moiety binding the film to the solid surface, the chemical linking moiety including a residue of a photochemically reactive group covalently bonded to the solid surface and a residue of a different active group bonded to the film of albumin, one of the reactive groups being unresponsive to a stimulus to which the other reactive group responds.

12. A biocompatible device having a solid surface carrying molecules of a synthetic hydrophilic polymer capable of existing in contact with biological fluid to tissue of a living organism with a net beneficial effect on the organism, and a chemical linking moiety residue covalently bonding individual molecules of the synthetic hydrophilic polymer to the solid surface, the chemical linking moiety residue including a residue of a